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EXAMINER	
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2164	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/623,168

Applicant(s)

HARTER, STEVEN V.

Examiner

Phuong-Thao Cao

Art Unit

2164

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 and 25-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 and 25-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is in response to Amendment filed on 05/07/2007 and entered with an RCE.
2. Claims 1 and 12 have been amended, and claim 24 was originally missed. Currently, claims 1-23 and 25-17 are pending.

Continued Examination Under 37 CFR 1.114

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/07/2007 has been entered.

Response to Arguments

4. Applicant's arguments with respect to claims 1-23 and 25-27 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 12-23 and 25-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 12, it is unclear which “identifying” step that the phrase “wherein identifying comprises...” (line 7) refers since there are two “identifying” steps recited in the claim.

Claims 13-23 and 25-27 are rejected as incorporating the deficiencies of rejected claim 12 upon which they depend.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-6, 11-14, 20-23 and 25-27 (effective filing date 07/19/2002) are rejected under 35 U.S.C. 103(a) as being unpatentable over Stewart et al. (Publication No US 2003/0191731,

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effective filing date 04/04/2002) in view of Baisley (US Patent No 6,275,787, effective filing date 10/14/1998).

As to claim 1, Stewart et al. teaches:

“A computer storage medium having instructions for validating data in a database system” (see Stewart et al., [0119]), the instructions comprising:

“instantiating a property of first object as a second object” (see Stewart et al., [0038] and [0097] wherein the Data Object that holds the current value and the current state of the Property is equivalent to an object instantiation of the Property; also see [0045] wherein Subscriber is the first object and Data Object holding the current value of property (Billable) is the second object); and

“applying constraint information to a property of the second object to ascertain if the property is validated” (see Stewart et al., [0106] for applying Rule language to specific instances of Data (or properties) (see [0038] and [0097]) and more specifically applying rules to the current value of property [0059] which is a property of the Data Object [0038]; also see [0062] and [0039] for validating in the hierarchical network).

However, Stewart et al. does not explicitly teach:

“wherein the second object includes a reference to a collection of constraint information, the constraint information being stored separate from the second object”.

On the other hand, Baisley teaches:

“wherein the second object includes a reference to a collection of constraint information, the constraint information being stored separate from the second object” (see Baisley, [column 3,

lines 30-55] and [column 4, lines 7-15] for the disclosure of an object including a reference to another object; since an object is constrained by its properties and their values, properties and their values are interpreted as constraint information, and an object can be broadly interpreted as a collection of constraint information).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Baisley into Stewart et al.'s system. One of the ordinary skill in the art would have been motivated to do so since the knowledge of an object including a reference is well-known in the art in order to provide an alternative and effective way to implement the association between an validated object and its constraint information. In addition, both of the references (Stewart et al. and Baisley) teach features that are directed to analogous art and they are directed to the same field of endeavor, such as, database system, object, properties, constraints and validating data. This close relation between both of references highly suggests an expectation of success.

As to claim 2, this claim is rejected based on arguments given above for rejected claim 1 and is similar rejected including the following:

Stewart et al. and Baisley teach:

“wherein the constraint information comprises a function of the value of the property, and wherein applying constraint information comprises comparing a received value for the property to the constraint information” (see Stewart et al., [0064], [0067] and [0082] wherein Rule is equivalent to Applicant's “constraint information”; also see [0106] and [0107]).

As to claim 3, this claim is rejected based on arguments given above for rejected claim 1 and is similar rejected including the following:

Stewart et al. and Baisley teach:

“wherein the constraint information comprises a function of status of a second property, and wherein applying constraint information comprises examining the status of the second property” (see Stewart et al., [0058] and [0117]).

As to claim 4, this claim is rejected based on arguments given above for rejected claim 3 and is similar rejected including the following:

Stewart et al. and Baisley teach:

“wherein the status of the second property comprises whether its value can be changed” (see Stewart et al., [0058] and [0097] wherein the status of “read-only” is equivalent to the status of the second property as illustrated in Applicant’s claim language).

As to claim 5, this claim is rejected based on arguments given above for rejected claim 4 and is similar rejected including the following:

Stewart et al. and Baisley teach:

“wherein the status of the second property comprises whether its value is valid” (see Stewart et al., [0038] and [0097] for the state of valid/invalid).

As to claim 6, this claim is rejected based on arguments given above for rejected claim 1 and is similar rejected including the following:

Stewart et al. and Baisley teach:

“setting the value of the property if the constraint information is met” (see Stewart et al., [0062] and [0092] wherein committing these changes to Data to the Database is equivalent to setting the value of the property as illustrated in Applicant’s claim language).

As to claim 11, this claim is rejected based on arguments given above for rejected claim 1 and is similar rejected including the following:

Stewart et al. and Baisley teach:

“obtaining a current value of the property” (see Stewart et al., [0039] wherein a Rule Object must obtain the current value of a Property in order to know it as disclosed; also see [0059]).

As to claim 12, Stewart et al. teaches:

“A computer storage medium having instructions comprising a framework for validating data in a database system” (see Stewart et al., Abstract, Fig. 2 and [0119]), the instructions comprising:

“identifying at least one property of entity to be validated” (see Stewart et al., [0046] wherein the disclosure of setting a property to be billable for a validation is equivalent to Applicant’s claim language);

“identifying constraint information to be used for ascertaining if said at least one property is valid” (see Stewart et al., [0045], [0047] and [0057] wherein Rules and conditions is equivalent to Applicant’s “constraint information”);

“forming an object of said at least one property” (see Stewart et al., [0038], [0039], [0059], [0097] and [0106]).

However, Stewart et al. does not explicitly teach:

“wherein identifying comprises referencing a reference stored within the object, the reference being indicative of constraint information which is stored outside of the object itself”.

On the other hand, Baisley teaches:

“wherein identifying comprises referencing a reference stored within the object, the reference being indicative of constraint information which is stored outside of the object itself” (see Baisley, [column 3, lines 30-55] and [column 4, lines 7-15] for the disclosure of an object including a reference to another object; since an object is constrained by its properties and their values, properties and their values are interpreted as constraint information, and an object can be broadly interpreted as a collection of constraint information).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Baisley into Stewart et al.'s system. One of the ordinary skill in the art would have been motivated to do so since the knowledge of an object including a reference is well-known in the art in order to provide an alternative and effective way to implement the association between an validated object and its constraint information. In addition, both of the references (Stewart et al. and Baisley) teach features that are directed to analogous art and they are directed to the same field of endeavor, such as, database system, object, properties, constraints and validating data. This close relation between both of references highly suggests an expectation of success.

As to claim 13, this claim is rejected based on arguments given above for rejected claim 12 and is similar rejected including the following:

Stewart et al. and Baisley teach:

“identifying a validator of a function of a type of said at least one property, the validator being a class of validators” (see Stewart et al., [0036] and [0037] wherein each specialized Rule Object is equivalent to Applicant’s “validator”).

As to claim 14, this claim is rejected based on arguments given above for rejected claim 12 and is similar rejected including the following:

Stewart et al. and Baisley teach:

“identifying events to be issued during validation” (see Stewart et al., [0039] wherein returning error to the caller is an event; also see [0037] for trigger/notification).

As to claim 20, this claim is rejected based on arguments given above for rejected claim 12 and is similar rejected including the following:

Stewart et al. and Baisley teach:

“wherein identifying constraint information comprises identifying valid criteria for a value of the property” (see Stewart et al., [0037] wherein allowed values list is equivalent to valid criteria as illustrated in Applicant’s claim language).

As to claim 21, this claim is rejected based on arguments given above for rejected claim 12 and is similar rejected including the following:

Stewart et al. and Baisley teach:

“wherein identifying constraint information comprises identifying criteria of when a value of the property can be changed” (see Stewart et al., [0047] and [0058]).

As to claim 22, this claim is rejected based on arguments given above for rejected claim 21 and is similar rejected including the following:

Stewart et al. and Baisley teach:

“wherein the criteria identifies that the value can be changed anytime upon execution of the instruction” (see Stewart et al., [0057], [0058] and [0062] for updates and revisions to the Data).

As to claim 23, this claim is rejected based on arguments given above for rejected claim 21 and is similar rejected including the following:

Stewart et al. and Baisley teach:

“wherein the criteria identifies that the value can be changed as a function of creation of a corresponding entity” (see Stewart et al., [0058] wherein value of Currency, Period and Terms is updated or changed when there is any change in Billable status wherein each Billable status can be considered a corresponding entity).

As to claim 25, this claim is rejected based on arguments given above for rejected claim 21 and is similar rejected including the following:

Stewart et al. and Baisley teach:

“wherein the criteria identifies that the value can be changed as a function of a status value of another property” (see Stewart et al., [0058] for the trigger Rule which is equivalent to criteria as illustrated in Applicant’s claim language).

As to claim 26, this claim is rejected based on arguments given above for rejected claim 25 and is similar rejected including the following:

Stewart et al. and Baisley teach:

“wherein the status value comprises whether said another property is changeable” (see Stewart et al., [0038] wherein read-only is the status indicating whether the value of the property is changeable as illustrated in Applicant’s claim language).

As to claim 27, this claim is rejected based on arguments given above for rejected claim 26 and is similar rejected including the following:

Stewart et al. and Baisley teach:

“wherein the status value comprises whether said another property is valid” (see Stewart et al., [0038] wherein valid/invalid is the status indicating where the value of the property is valid as illustrated in Applicant’s claim language).

9. Claims 12 (effective filing date 7/19/2002) is rejected under 35 U.S.C. 103(a) as being unpatentable over Delo et al. (US Patent No 6,389,414, effective filing date 9/21/1998) in view of Stewart et al. (Publication No US 2003/0191731, effective filing date 04/04/2002) and Baisley (US Patent 6,275,787, effective filing date 10/14/1998).

As to claim 12, Delo et al. teaches:

“A computer storage medium having instruction comprising a framework for validating data in a database system” (see Delo et al., Abstract, Fig. 2A and [column 6, lines 15-35]), the instruction comprising:

“identifying at least one property of an entity to be validated” (see Delo et al., [column 8, lines 60-65] wherein table is an entity, so each column can be consider as property of the table and the disclosure of determining a column to validate is equivalent to Applicant’s claim language);

“identifying constraint information to be used for ascertaining if said at least one property is valid” (see Delo et al., [column 8, lines 60-67] and [column 9, lines 1-5 and 25-35] wherein validation data is equivalent to Applicant’s “constraint information” and the disclosure of retrieving validation for the column is equivalent to Applicant’s claim language).

However, Delo et al. does not teach “forming an object of said at least one property”.

On the other hand, Stewart et al. teaches “forming an object of said at least one property” (see Stewart et al., [0038] wherein Data Object is an object of the Property, as illustrated in Applicant’s claim language).

It would have been obvious to a person having ordinary skill in the art at the time the invention was have made to have modified Delo et al. by the teaching of Stewart et al. to add the function of forming an object of said at least one property upon execution of said instruction in order to perform validation since this object-oriented technique provides an effective way to manipulate data in general.

However, Delo et al. and Stewart et al. do not explicitly teach:

“wherein identifying comprises referencing a reference stored within the object, the reference being indicative of constraint information which is stored outside of the object itself”.

On the other hand, Baisley teaches:

“wherein identifying comprises referencing a reference stored within the object, the reference being indicative of constraint information which is stored outside of the object itself””
(see Baisley, [column 3, lines 30-55] and [column 4, lines 7-15] for the disclosure of an object including a reference to another object; since an object is constrained by its properties and their values, properties and their values are interpreted as constraint information, and an object can be broadly interpreted as a collection of constraint information).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Baisley into Delo et al. (as modified by Stewart et al.)’s system. One of the ordinary skill in the art would have been motivated to do so since the knowledge of an object including a reference is well-known in the art in order to provide an alternative and effective way to implement the association between an validated object and its constraint information. In addition, both of the references (Delo et al. and Baisley) teach features that are directed to analogous art and they are directed to the same field of endeavor, such as, database system, objects (rows), properties (columns), constraints and validating data. This close relation between both of references highly suggests an expectation of success.

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10. Claims 7-10 and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stewart et al. (Publication No US 2003/0191731) in view of Baisley (US Patent 6,275,787, effective filing date 10/14/1998), and further in view of Deffler et al. (US Patent No 6,859,919).

As to claim 7, Stewart et al. and Baisley teach all limitations as recited in claim 6.

However, Stewart et al. and Baisley do not teach “issuing an event indicating the property is valid”.

On the other hand, Deffler et al. teach “issuing an event indicating the property is valid” (see Deffler et al., [column 6, lines 13-25] wherein the disclosure of providing an indication that the action was successful implies that the property is valid as illustrated in Applicant’s claim language).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Stewart et al. and Baisley by the teaching of Deffler et al. to add the feature of issuing an event indicating the property is valid since issuing an event indicating the property is valid provides the system with an effective and interactive way to communicate occurrences in the validation process and prompt for appropriate action or response.

As to claim 8, Stewart et al. and Baisley teach all limitations as recited in claim 1.

However, Stewart et al. and Baisley do not teach “issuing an exception if the constraint information is not met”.

On the other hand, Deffler et al. teaches “issuing an exception if the constraint information is not met” (see Deffler et al., [column 6, lines 13-25] wherein “any one of set of semantics” is equivalent to Applicant’s “constraint information” and “indication that the action is failed” is equivalent to Applicant’s “issuing an exception”).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Stewart et al. and Baisley by the teaching of Deffler et al. to add the feature of issuing an exception if the constraint information is not met since issuing an exception if the constraint information is not met provides the system with an effective and interactive way to communicate occurrences in the validation process and prompt for appropriate action or response.

As to claim 9, Stewart et al. and Baisley teach all limitations as recited in claim 1.

However, Stewart et al. and Baisley do not teach “issuing an event indicating the property value is changing”.

On the other hand, Deffler et al. teaches “issuing an event indicating the property value is changing” (see Deffler et al., [column 5, lines 43-67] and Table One for event “PreEdit” which is equivalent to Applicant’s claim language).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Stewart et al. and Baisley by the teaching of Deffler et al. to add the feature of issuing an event indicating the property value is changing since issuing an event indicating the property value is changing provides the system with an effective and

interactive way to communicate occurrences in the validation process and prompt for appropriate action or response.

As to claim 10, Stewart et al. and Baisley teach all limitations as recited in claim 1.

However, Stewart et al. and Baisley do not teach “issuing an event indicating whether the property value is changeable”.

On the other hand, Deffler et al. teaches “issuing an event indicating whether the property value is changeable” (see Deffler et al., [column 5, lines 43-67] and Table One for event “PreEdit” which is equivalent to Applicant’s claim language).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Stewart et al. and Baisley by the teaching of Deffler et al. to add the feature of issuing an event indicating whether the property value is changeable since issuing an event indicating whether the property value is changeable provides the system with an effective and interactive way to communicate occurrences in the validation process and prompt for appropriate action or response.

As to claim 15, Stewart et al. and Baisley teach all limitations as recited in claim 14.

However, Stewart et al. and Baisley do not teach “wherein the event to be issued comprises a notification that a value of the property is changing”.

On the other hand, Deffler et al. teach “wherein the event to be issued comprises a notification that a value of the property is changing” (see Deffler et al., [column 5, lines 43-67]

and Table One for event “PreEdit” which is equivalent to Applicant’s claim language; also Stewart et al., [0037] for trigger/notification).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Stewart et al. and Baisley by the teaching of Deffler et al. to add the feature of issuing an event indicating the property value is changing since issuing an event indicating the property value is changing provides the system with an effective and interactive way to communicate occurrences in the validation process and prompt for appropriate actions or response.

As to claim 16, Stewart et al. and Baisley teach all limitations as recited in claim 14.

Stewart et al. and Baisley do not teach “wherein the event to be issued comprises a notification that a value of the property has changed”.

Deffler et al. teach “wherein the event to be issued comprises a notification that a value of the property has changed” (see Deffler et al., [column 5, lines 43-67] and Table One for event “PostEdit” which is equivalent to Applicant’s claim language; also Stewart et al., [0037] for trigger/notification).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Stewart et al. and Baisley by the teaching of Deffler et al. to add the feature of issuing an event indicating the property value is changed since issuing an event indicating the property value is changing provides the system with an effective and interactive way to communicate occurrences in the validation process and prompt for appropriate actions or response.

As to claim 17, Stewart et al. and Baisley teach all limitations as recited in claim 14.

However, Stewart et al. and Baisley do not teach “wherein the event to be issued comprises a status of the property is changed”.

On the other hand, Deffler et al. teaches “wherein the event to be issued comprises a status of the property is changed” (see Deffler et al., [column 5, lines 43-67], [column 9, lines 30-38] and Table One wherein event “PreNull” is equivalent to event to be issued comprises a status of the property has changed as illustrated in Applicant’s claim language since status of the property would be changed from existing to non-existing as considered by the system when a property is destroyed).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Stewart et al. and Baisley by the teaching of Deffler et al. to add the feature of issuing an event indicating a status of the property is changed since issuing an event indicating a status of the property is changing provides the system with an effective and interactive way to communicate occurrences in the validation process and/or prompt for appropriate actions or response.

As to claim 18, this claim is rejected based on arguments given above for rejected claim 17 and is similar rejected including the following:

Stewart et al., Baisley and Deffler et al. teach:

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“wherein the status comprises whether the value of the property is changeable” (see Stewart et al., [0038] for the state of read-only which indicates whether the value of the property is changeable as illustrated in Applicant’s claim language).

As to claim 19, this claim is rejected based on arguments given above for rejected claim 18 and is similar rejected including the following:

Stewart et al., Baisley and Deffler et al. teach:

“wherein the status comprises whether the value of the property is valid” (see Stewart et al., [0038] for the state of valid/invalid which indicates whether the value of the property is valid as illustrated in Applicant’s claim language).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong-Thao Cao whose telephone number is (571) 272-2735. The examiner can normally be reached on 8:30 AM - 5:00 PM (Mon - Fri).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Phuong-Thao Cao
Art Unit 2164
August 22, 2007


CHARLES RONES
SUPERVISORY PATENT EXAMINER